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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,587	03/31/2004	R. David Arnold	07844-637001 / P590	8422
21876	7590	01/04/2006	EXAMINER	
FISH & RICHARDSON P.C. P.O. Box 1022 MINNEAPOLIS, MN 55440-1022			CHOW, JEFFREY J	
			ART UNIT	PAPER NUMBER
			2672	

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,587

Applicant(s)

ARNOLD ET AL.

Examiner

Jeffrey J. Chow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements filed 14 September 2005 and 22 November 2004 contain particular documents that fail to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

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Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Figures 1, 2, 3A, and 3B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 809.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the Type1 font and TrueType font must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

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sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Content of Specification

- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

The summary of the disclosure is objected to because the summary is essentially a rewording of the claims as a whole and does not benefit the reader in briefly understanding the

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invention in a brief time period where the reader would have to go to the detailed description to finally understand the invention in a longer time period. The summary should be brief and consist of general statements of the inventions.

The disclosure is objected to because of the following informalities: Reference characters 918 (page 16, line 29), 1000 (page 17, line 3), 803 (page 19, line 24), 842 (page 21, line 23), 853 (page 23, line 32), 855 (page 23, line 32), and 857 (page 23, line 32) are not shown in the drawings. Rows 1 – 5 (page 23, line 32) are not shown in the drawings. Figure 3 (page 2, line 31), 8A (page 11, line 20), are 8B (page 11, line 20) not in the drawings. Figure 3A, 8A-1, 8A-2, 8B-1, and 8B-2 are not mentioned in the specifications.

The disclosure is objected to because of the following informalities: “the font has as a standard stem width” (page 11, line 20) is grammatically incorrect.

The disclosure is objected to because of the following informalities: Reference character 804 is not a row (page 11, line 24).

Appropriate correction is required.

Claim Objections

Claims 9, 19, and 29 are objected to having trademark, “TrueType” in the claims.

Claims 8, 18, and 28 are objected to having possible trademark, “Type 1 font” in the claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1- 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The following words found throughout the specifications must be explained for one of ordinary skill in the art to better comprehend the invention: “em”, “fine pixels”, “device pixels”, “device resolution grid”, “fine grid resolution”, “fine grid”, and the likes. Applicant is reminded that no new matter can be added.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 5, 7, 8, 9, 14, 15, 17, 18, 19, 24, 25, 27, 28, 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4, 5, 14, 15, 24, and 25 recite the limitation "first direction". There is insufficient antecedent basis for this limitation in the claim. There is no mention in the detailed specification of “first direction” for one of ordinary skill in the art to understand the uses.

Claims 4, 14, and 24 recite the limitation "second direction". There is insufficient antecedent basis for this limitation in the claim. There is no mention in the detailed specification of "first direction" for one of ordinary skill in the art to understand the uses.

Claims 7, 17, and 27 recite the limitation "corresponding direction". There is insufficient antecedent basis for this limitation in the claim. Page 20, lines 16 – 23 mention the use of "corresponding direction", but does not relate to the length of the edge of a stroke that passes through a device pixel. This is an inadequate explanation of "corresponding direction" for one of ordinary skill in the art to understand the uses in relations with length of the edge of a stroke that passes through a device pixel.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "length of the edge of a stroke" in claims 7, 17, and 27 is used by the claim to mean "a ratio of the number of initial adjustment pixels in a direction to a grid ration in the corresponding direction", while the accepted meaning is a measurable unit of distance. The term is indefinite because the specification does not clearly redefine the term.

Claims 7, 17, and 27 are rejected for being confusing. The length of the edge of a stroke is a ratio of a quantitative number to another ratio. Essentially, the length of the edge of a stroke is a ratio of ratio and it is confusing for one of ordinary skill in the art to comprehend what kind of unit or ratio the claimed length of the edge of a stroke is.

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Claims 8, 18, and 28 are rejected for being vague. "Type 1 font" is ambiguous and one of ordinary skill in the art and the general public would not know what version of Type 1 font to use.

Claims 9, 19, and 29 are rejected for being vague. "TrueType font" is ambiguous and one of ordinary skill in the art and the general public would not know what version of TrueType font to use.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 6, 10 – 16, 20 – 26, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold.

Regarding to independent claim 1, Arnold discloses a character being rendered in high resolution, where it is inherent that a character comprises of glyphs and strokes (column 4, line 13), which reads on the claimed glyph associated with a font, the claimed glyph rendered at a size and having one or more strokes, including one or more horizontal or vertical strokes, and the claimed glyph being rendered at a high resolution representation. Arnold discloses the calculation of an index that is based off of scaled stem (column 6, lines 29 – 36), where the ratio between the scaled stroke width and the threshold value reads on the claimed initial adjustment

value for the glyph. Arnold also discloses calculating the stem width using the vertical or horizontal strokes (column 6, lines 33 – 37) and computing an adjustment function mapping original density values to adjusted density values (column 7, lines 1 – 7) and the bottom part of the horizontal stroke of character “A” covers half of the pixels that is used for the bottom part of the horizontal stroke of character “A” (figure 1c), which reads on the claimed offset amount being determined based on the initial adjustment value and the claimed one or more edges of at least one stroke is offset from a device resolution grid by the offset amount, the high resolution representation representing a set of device pixels each having an initial density value. Arnold discloses an end result of the pixels associated with the horizontal and the vertical strokes of the characters in Fig 7b being mark after the density value of the associated pixels has been adjusted in Fig 7d, which reads on the claimed minimum number of device pixels will be marked by the one or more horizontal or vertical strokes after adjusting the density values of one or more horizontal or vertical strokes after adjusting the density values of one or more device pixels representing the glyph. Arnold also discloses the table 60 is based off the index and functions that is scaled to the output type size (column 6, lines 43 – 64), in other words, the output or the adjusted density values is based off the index and the displacement of the output values to the original values where the function calculates the difference between the output values to the original values to obtain the output values, which reads on the claimed length of the edge of the stroke that passes through the device pixel and the claimed density values being adjusted by the final adjustment value based on the initial adjustment value and the length of an edge of a stroke passing through the device pixel. The length of an edge of a stroke passing through the device

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pixel is calculated and understood on pages 13 and 14 of applicant's disclosure where the length of an edge is based on the number of initial value pixels.

Regarding to independent claims 10, 11, 20, 21, and 30, see Arnold's system.

Regarding to dependent claims 2, 3, 6, 12, 13, 16, 22, 23, and 26, see Arnold's system.

Regarding to dependent claims 4, 14, and 24, Arnold's system is capable to calculate offsets amount in two directions by processing the character "E", which has both horizontal and vertical strokes.

Regarding to dependent claims 5, 15, and 25, Arnold's system is capable to calculate offsets amount in just one directions by processing the character "I", which has only a vertical stroke.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 9, 18, 19, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold.

Regarding to dependent claims 8, 9, 18, 19, 28, and 29, Arnold did not disclose the use of a Type 1 font or TrueType font. It is obvious to one of ordinary skill in the art at the time of the invention that Arnold's system can handle any types of fonts, such as a Type 1 font and

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TrueType font, for it discloses the use of using fonts in general, which allows readers to easily read any types of fonts on a display device.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey J. Chow whose telephone number is (571)272-8078. The examiner can normally be reached on Monday - Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (703)272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JJC


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